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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,107	03/22/2002	Hisakazu Tanaka	020307	5051

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EXAMINER

ZALUKAEVA, TATYANA

ART UNIT PAPER NUMBER

1713

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,107

Applicant(s)

TANAKA ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3,10-16,18 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Examiner acknowledges and apologizes for the typographical error in paragraph 2-3 of the previous communication. However, Claim 19 is within the elected claims and HAS BEEN EXAMINED ON the merits, and has been correctly identified in PTO-326 form.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Rejection under 35 USC 112, second paragraph is withdrawn in light of Applicants' clarification.
4. Claims 1 ,2, 4-6, 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Freeman et al (U.S. 5,531,934) or Hann et al (U.S. 5,568,464).

Freeman discloses homopolymers and **copolymers** of the poly(amino acids) , wherein the polyaminoacids comprise a reaction product of at least one compound selected from amino acids, amic acids, ammonium salts of monoethylenically unsaturated dicarboxylic acids, ammonium salts of hydroxypolycarboxylic acids and combinations thereof (abstract, col.2, lines 60-67). The polyaminoacids are presented by general formula I , line 60, col.3. The term "poly(amino acids)," is meant to include hydrolyzed and non-hydrolyzed poly(amino acids). "Hydrolyzed polyamino acids" are **anhydropolyamino acids** which have been reacted or hydrolyzed with at least one common base or acid.

The term "poly(amino acids)" as herein defined is also meant to include homopolymers of amino acids and **copolymers of amino acids**. (col. 4, lines 4-11). Aminoacids are

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presented in col.5, lines 18-35. As said before, the anhydropolyaminoacids can be copolymerized with other monomers to obtain copolymers. Carboxylic acids useful as additional monomers for polymerization are listed in col.6, lines 11-33, wherein (meth)acrylic acid is named in line 20 of col.6.

Hann discloses copolymer of anhydropolyaminoacid (abstract, col.4, lines 4-11, col.3, formula I, col.4, lines 22-25) with other monomers among those are unstaruted carboxylic acids, such as (meth)acrylic acid (col.6, lines 19, 20). The anhydropolyaminoacid is reaction product of at least one compound selected from amino acids, amic acids, ammonium salts of monoethylenically unsaturated dicarboxylic acids, ammonium salts of hydroxypolycarboxylic acids and combinations thereof (abstract, col.2, lines 64-67, col.5, lines 1-10). With regard to the water absorbing property of the copolymer, it is noted that the preamble here is not accorded significant patentable weight, because it recites a statement of intended use or purpose, and as a rule does not limit the scope of the claim, since the statements in preamble merely define the context in which the invention operates, *DeGeorge v. Bernier*, 226 USPQ 758,761, n.3 (Fed.Cir. 1985). With regard to claim 5, since the copolymer of Freeman and Hann is identical to those as claimed, it is fully capable of forming gel particles as instantly claimed.

5. Claims 7 and 9 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Freeman.

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Freeman discloses polyaspartic acid as the most preferred polyaminoacid in claim 2 and he also provides for anhydropolyaminoacids derived from polyaminoacids. The anhydride of aspartic acid is a succineimide. In the event that one of the ordinary skill in the art would not immediately envisage Applicants' instantly claimed polysuccineimide, then the compound is rendered obvious from the disclosure found in the prior art. The prior art contains of Applicants' instantly claimed polyaminoacid and clearly suggests to one of ordinary skill in the art that they be used to obtain anhydroaminoacid. Such a suggestion renders obvious applicants' instantly claimed compound, and as such, the claims are not patentable. With regard to claim 9 the rejection is made in the sense of *In re Fitzgerald* (205 USPQ 594). (CAFC), wherein the base presumption that the properties governing the claimed copolymers, if not taught, may be very well met by the copolymers of Freeman or Hann, since the ethylene copolymers of Freeman or Hann are essentially the same and made in essentially the same manner as applicants' polymer. The burden to show that this, in fact, is not the case is shifted to applicants.

6. Claims 17 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman in view of JP 10025984.

Freeman does not disclose the use of his polymers in water absorbent articles. The use of polyaminoacids in water absorbing articles, such as paper diapers is known in the art. JP'984 discloses absorbing resin, capable of manifesting excellent water absorbing performances, especially excellent water absorption rate together with biodegradability and useful as a water absorber for a paper diaper, agriculture,

horticulture or the like by forming a cross-linked polyamino acid having into a flaky shape. Polymer comprises gel particles. (see abstract)

The paper diapers of JP'984 present the assembly wherein the fiber material is impregnated with polymer and arranged between permeable and impermeable sheets. Therefore, it would have been obvious to those skilled in the art to replace the copolymer of JP with analogous, but having an additional monomeric unit, copolymer of Freeman in order to impart better dispersibility to the polymer and better absorbing properties to the article.

Response to Arguments

7. Applicant's arguments filed 06/02/2004 have been fully considered but they are not persuasive.

With regard to Freeman reference, the crux of Applicants arguments is that Freeman discloses polyaminoacids as part of detergents for inhibiting corrosion, while the instant claims call for water absorbent material comprising the copolymer.

In response to this it is noted that since the polymers of Freeman are the same as instantly claimed polymers, they are fully capable of being used I water absorbent articles. The preamble in the instant composition claims recites a statement of intended use or purpose, and does not limit the scope of the claim, since the statements in preamble merely define the context in which the invention operates, *DeGeorge v. Bernier*, 226 USPQ 758,761, n.3 (Fed.Cir. 1985)

In regard to the Applicants' argument about the suitability or unsuitability of Freeman's and Hann's for the Applicants' "intended use", it is well settled by the Courts that the

prior art reference disclosing the composition need not disclose a utility to defeat patentability under 35 U.S.C. § 102. **In re Schoenwald**, 964 F. 2d 1122, 1123-1124, 22 USPQ 2d. 1671, 1672-1673 (Fed. Cir. 1992).

Applicants arguments that the compounds of Freeman's examples 21-38 overlap with component A-1 but not with component A are not persuasive, because component A in claims 1, 2, 8, 9, 17 and 19 are defined as **anhydropolyaminoacid**. Freeman teaches that the term "poly(amino acids)," is meant to include hydrolyzed and non-hydrolyzed poly(amino acids). "Hydrolyzed polyamino acids" are **anhydropolyamino acids !!!** which have been reacted or hydrolyzed with at least one common base or acid. The term "poly(amino acids)" as herein defined is also meant to include homopolymers of amino acids and **copolymers of amino acids**. (col. 4, lines 4-11). It is further noted that "[A]n Examiner has the duty to police the claim language by giving it the broadest possible interpretation", *Springs Window Fashions LP v. Novo Industries L.P.*, 65, USPQ 2d 1826, 1830 (Fed. Cir. 2003). Furthermore, [A]s an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art...". *In re Morris*, 44 USPQ 2d 1023,1027 (Fed. Cir. 1997). In light of the above the anhydropolyaminoacid of Freeman do comply with "anhydropolyaminoacid" as per claim 1. Applicants arguments, therefore, are more specific than the claims. Applicants are further reminded that the identity required for anticipation is between the claimed subject matter and the subject matter disclosed by the reference; identity does not

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require the reference to disclose the same subject matter as described in the specification. See *Kalman vs. Kimberly Clark Corp.* 218 USPQ 781 (Fed. Cir.1983)

Applicants' argument with regard to Hann's reference resides in contention that the disclosure of Hann regarding the polyaminoacids is essentially the same as that of Freeman, and according to Applicants. This is the reason, according to Applicants, that Hann fails to disclose the copolymer of (A) and (B) (see page 7 of Remarks as of 06/02/2004). For this reasons, the rationale applied by the Examiner in discussion of arguments on the Freeman's reference is incorporated herein in its entirety.

With regard to 103 rejection over Freeman of claims 7 and 8, polysuccinimide is disclosed by Freeman, and it is further noted that the patentability of the product depends on the product per se, not on the process by which it was obtained, therefore, even if starting materials a may be different, if the resulting product is the same as claimed, the product is either anticipated or obvious.

Applicants' argument with regard to the rejection of claims 17 and 19 resides in contention that the copolymer of claim 18 is not disclosed by Freeman, and therefore, cannot be combined with the other reference for an obviousness rejection. In response to this, Applicants are advised that the manner of presenting the polymer in claim 17 overlaps with the Freemann' s disclosure given the broadest interpretation na meaning the terms in the claims.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

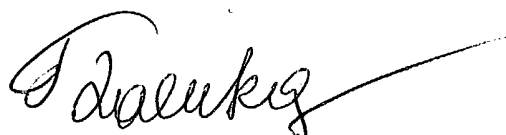
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva

A handwritten signature in black ink, appearing to read 'T. Zalukaeva', with a long horizontal flourish extending to the right.

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Primary Examiner
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August 20, 2004